CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-4
NPDES NO. CA 0029149

WASTE DISCHARGE REQUIREMENTS FOR:

CASTROL INCORPORATED
RICHMOND
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Castrol Inc., (hereinafter called the discharger) filed an application dated August 2, 1985 for waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES). The application was supplemented by submittals dated April 23 and May 2, 1986.

2. The discharger currently receives and stores petroleum lubricants which are blended, packaged and transported off-site by barge, rail or truck. The wastewater consists of washdown from product loading and storage areas, stormwater runoff, and extracted groundwater. The extracted groundwater contributes an average of 600 gpd and a maximum of 1200 gpd to the wastestream. The quantity of stormwater runoff is variable. The wastes are combined, treated in an oil-water separator and then discharged into Santa Fe Channel of Richmond Harbor, an arm of San Francisco Bay.

3. Studies by the discharger show that groundwaters beneath the site have been polluted by organic solvents such as 1,2 dichloroethane, tetrachloroethylene, trans 1,2 dichloroethylene, trichloroethylene and oil and grease. The pollution at the Castrol Inc. facility appears to be a result of spillage and improper oil and chemical handling practices of the former owners.

4. The discharger is presently governed by Waste Discharge Requirements, Order No. 85-41 which allows for the clean-up and containment of localized polluted groundwater containing oil and volatile organics.

5. The discharger has installed two extraction wells, BC-3 and BC-8 to provide groundwater cleanup and containment. The wells extract an average of 600 gpd and a maximum of 1200 gpd of groundwater which is then pumped to a holding tank prior to discharge through the oil-water separator and into Santa Fe Channel. Concentrations of total volatile organic compounds (VOC's) detected in the extracted groundwater range from 10 to 489 ppb. Concentrations of total VOC's in the effluent range from 0.2 to 108.2 ppb.

6. The discharger will conduct a study by July 1, 1987 to characterize their effluent and to investigate possible treatment methods to meet the required effluent limits. The effluent limitations contained in this permit will be met by August 31, 1987.

7. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Richmond Harbor and San Francisco Bay.

8. The beneficial uses of Santa Fe Channel of Richmond Harbor are:

   a. Water contact recreation
   b. Non-contact water recreation
   c. Wildlife Habitat
   d. Preservation of Rare and Endangered Species
   e. Estuarine Habitat
   f. Fish migration and spawning
   g. Industrial service supply
   h. Shellfish Harvesting
   i. Navigation
   j. Commercial and Sport Fishing

9. The Basin Plan prohibits the discharge of any wastewater which has particular characteristics of concern to beneficial uses at any point which does not receive a minimum initial dilution of at least 10:1 or into any nontidal water or deadend slough or similar confined water areas or their immediate tributaries. The receiving waters for this discharge constitutes a confined area similar to a deadend slough.

10. The Basin Plan allows for exceptions to the prohibitions referred to Finding 9 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

11. Exceptions to the prohibitions referred to in Finding 9 are warranted because a portion of the discharge is an integral part of a program to cleanup polluted groundwater and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would effect beneficial uses. Should studies indicate chronic effects not currently anticipated, the Board will review the requirements of this order based upon Section B.1.e.

12. The stormwater runoff portion of the discharge contains only minor amounts of pollutants and by itself has no particular characteristics of concern to beneficial uses. Therefore, the Basin Plan prohibition, stated in Finding 9, does not apply to this portion of the discharge.

13. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin. The

discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

14. Effluent limitations and toxic effluent standards established pursuant to Section 301, 304, and 307 of the Clean Water Act and amendments thereto are applicable to the discharge.

15. Effluent limitations of this Order are based on the Basin Plan, State Plans and policies, and best engineering judgment. The Oil and Grease effluent limitation is considered to be that attainable by Best Available Technology, in the judgement of the Board. Justifications for the proposed volatile organic compound effluent limitation are discussed in detail in the Regional Board's guidance document entitled "Discharge of Polluted Groundwater to Surface Waters", dated September 1985.

16. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000 of Division 13) of the Public Resouces Code (CEQA) pursuant to Section 13389 of the California Water Code.

17. The Board has notified the discharger and interested agencies and persons of its intent to reissue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

18. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED THAT Castrol Inc. in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibition

1. The discharge of wastewater from tank or truck washing and associated pipe flushing operations to waters of the State is prohibited.

2. The discharge of cleaning chemicals or products of petroleum origin to waters of the State is prohibited. Any spills of such materials shall be promtly cleaned up and prevented from mixing with precipitation runoff which discharges into waters of the State.

3. Bypass or overflow or untreated wastewater to waters of the State, either at the plant or from the collection system is prohibited.

B. Effluent Limitations

1. Discharge of Waste 001 shall not contain constituents in excess of the following:*

Constituents	Units	Monthly Average	Maximum Daily
Oil and Grease	mg/l	10	20
Total Concentration of all synthetic volatile organic compounds**	mg/l	-	0.1

* The above effluent limits will be enforced as of August 31, 1987. The limits until then will be:

Oil and Grease-30 mg/l, daily maximum
Total VOC's- no limit

** Defined as benzene, carbon tetrachloride, chloroform, 1,2, or 1,4 dichlorobenzene, 1,1,dichloroethane, 1,2, dichloroethane, 1,1, dichloroethylene, ethyl benzene, methylene chloride, 1,1,2,2, tetrachloroethane, tetrachloroethylene, toluene, trans 1,2, dichloroethylene, 1,1,2, trichloroethane, trichloroethylene, vinyl chloride, and xylenes.

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

TOXICITY: The survival of test fishes in 96 hour bioassays of the effluent as discharged shall be a median of 90% survival and a 90 percentile value of not less than 70% survival.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human comsumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limit to be exceeded in waters of the State in any place within one foot of the water surface:

a. pH	Variation from natural ambient pH by more than 0.5 pH units.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 78-36 adopted on June 20, 1978. Order No. 78-36 is hereby rescinded.

2. The discharger shall comply with all sections of this Order immediately upon adoption except D.3 below and B.1 above.

3. In order to prevent or minimize the potential for the release of toxic substances or other materials deleterious to water quality from ancillary activities to waters of the United States, through plant runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage, the discharger shall develop and implement a Best Management Practices (BMP) plan.

   The BMP plan shall be consistent with the general guidance contained in the U. S. Environmental Protection Agency publication "NPDES Best Management Practices Guidance Document", by the Office of Water Enforcement and Permits, NPDES Technical Support Branch, June 1981.

   The plan shall be submitted to the Executive Officer for approval within six months of the adoption of this permit. The plan shall be implemented within twelve months of the adoption of this permit.

4. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

5. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986, except items B.2, and B.3.

7. All applications, reports, or information submitted to the Regional Board shall be signed and certified pursuant to Environmental Protection Agency regulation (40 CFR 122.41K).

8. This order expires February 18, 1992. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

9. This Order shall serve as National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on February 18, 1987.

ROGER B. JAMES
Executive Officer

Attachments:
Standard Provisions & Reporting
Requirements, December 1986
Self Monitoring Program
Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Castrol Incorporated
Richmond
Contra Costa County

NPDES NO. CA 0029149

ORDER NO. 87-4

CONSISTS OF PART A, dated December 1986

AND PART B

PART B

DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING ANALYSIS AND OBSERVATIONS

I. Sampling Station Location/Description

A. Influent

Station	Description
I-1	At a point in the groundwater collection system (Holding Tank 110) immediately prior to treatment.

B. Effluent

Station	
E-1	At any point in the outfall from the oil separator between the point of discharge and the point at which all waste tributary to it is present.

C. Receiving Waters

Station	
C-1	At a point in Santa Fe Channel about 10 feet from where the discharge occurs.

D. Land Observations

Station	
P-1 through P-'n'	Located along the waterfront of the terminal facilities, at equidistant intervals, not to exceed fifty (50) feet. (A sketch showing the locations of these stations will accompany each report.)

II. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given as Table I.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste dischaarge requirements established in Regional Board Order No.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

FEBRUARY 23, 1987
Effective Date

Table 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	I-1	E-1		C-1		P Stations
Type of Sample	G	G	O	G	O	O
Flow Rate, gpd		M[1,2]				
Oil & Grease mg/l		M[1]		(3)		
pH, electrometric		M		Q(3)		
Toxicitiy, %Survival in waste as discharged		Y				
Total Volatile Organics (EPA 601/602)	M/Q	M		(3)		
Standard Observations			M		M	M

Legend For Table

Types of Samples

G = grab sample
O = observation

Types of Stations

A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations

Frequency of Sampling

M = once each month
Y = once each year
Q = quarterly, once in March, June Sept., and Dec.
M/Q = Monthly for 3 months, quarterly thereafter

Notes

1. During the first hour of runoff from the first daylight storm of each month.

2. Estimate volume of discharge in gallons per day.

3. Sampling will be done once each week when the discharge violates the effluent limitations.

4. Each sample taken by either the discharger or the Agency shall be presumed to be representative. However, due to the variability of the sampling and analysis of oil and grease discharged from petroleum marketing terminals, the discharger may in good faith declare a maximum of 10% of the samples taken by it during a calendar year, but no more than one sample taken during any calendar month, to be non-representative. No sample may be so excluded if it is the only sample taken by the discharger during a calendar month. Such a declaration must be included in writing with the next Monitoring Report submitted in accordance with the permit, and must include the results of the analysis of the excluded sample and a written explanation for the exclusion of that sample. If any sample is so excluded, the "daily average" concentration shall be the arithmetic average of the analyses of the remaining non-excluded samples.